Meaghan V. Perdue

meaghan.perdue@umassmed.edu

Former name: Meaghan V. Mauer

CURRENT POSITION

Postdoctoral Associate Feb. 2025 - Present

University of Massachusetts Chan Medical School
Worcester, MA, USA
Eunice Kennedy Shriver Center
Child and Adolescent NeuroDevelopment Initiative
ReproNim Center for Reproducible Neuroimaging Computation

EDUCATION

Ph.D., Developmental Psychology July 2021

Graduate Certificate in Neurobiology of Language
University of Connecticut, Storrs, CT, USA
Department of Psychological Sciences
Dissertation: "Neurobiological Mechanisms of Reading: Relationships Among Brain Function, Anatomy and Chemistry"

NSF Graduate Research Fellowship Program Awardee
NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellow: Language Plasticity
Connecticut Institute for the Brain and Cognitive Sciences (IBaCS) Affiliate
**Maternity leave November-December 2018*

M.S., Developmental Psychology Dec. 2018

University of Connecticut, Storrs, CT, USA
Thesis: "Associations Between Cortical Structure and Reading Skills in Beginning Readers"

B.A., Psychology, *Summa cum laude* May 2014

Emmanuel College, Boston, MA, USA
Concentration: Neuroscience
Minor: Spanish
Distinction in the Field of Psychology – Thesis: "Examining musical timbre and emotion"

ACADEMIC HONORS AND AWARDS

Canadian Institutes of Health Research Postdoctoral Fellowship (declined)	2025
Hotchkiss Brain Institute International Conference Travel Award	2024
Owerko Centre Trainee Publication Award, Alberta Children's Hospital Research Institute	2024
Alberta Children's Hospital Research Institute Trainee Travel Award	2023
Radiology Research Day Top Flash Talk Presentation, University of Calgary	2023
Postdoc Research Slam – 3rd Place Prize, University of Calgary	2023
Isabelle Y. Liberman Award, University of Connecticut	2020
Summa cum laude Graduate, Emmanuel College	2014
Distinction in the Field of Psychology, Emmanuel College	2014

Society for Computers in Psychology Birnbaum Scholarship	2013
Emmanuel College Presidential Scholarship	2010 - 2014
Emmanuel College Honors Program	2010 - 2014
Emmanuel College Dean's List	2010 - 2014

GRANTS AND FELLOWSHIPS

Co-Investigator – Jacobs Foundation Learning Variability NeTwork Exchange (LEVANTE) Grant. Value CHF 700,000. 2025 - 2027

Co-Investigator - Canadian Institutes of Health Research Project Grant 2025 - 2030
Grant title: *Advanced neuroimaging of fronto-striatal networks in youth and young adults with fetal alcohol spectrum disorder (FASD): implications for executive function.* Value CAD$1,775,000.

Canadian Institutes of Health Research Postdoctoral Fellowship (declined) 2025

T. Chen Fong Postdoctoral Fellowship in Medical Imaging Sciences 2024

Co-Investigator - Canadian Institutes of Health Research Operating Grant: Data Analysis Using Existing Databases and Cohorts. 2024
Grant title: *Uncovering the neurobiological underpinnings of learning to read and reading disorders.* Value CAD$75,000.

Honorary Killam Postdoctoral Fellowship, University of Calgary 2022 - 2024

University of Calgary Eyes High Postdoctoral Match-Funding Fellowship 2021 - 2023

NSF Graduate Research Fellowship 2017 - 2021

NSF IGERT International Research Experience Award, University of Connecticut 2018

NSF IGERT Language Plasticity Fellowship 2016 - 2018

NSF IGERT Innovation Grant, University of Connecticut 2016, 2017

Emmanuel College Honors Award Grant for Research and Creative Activities 2013

RESEARCH EXPERIENCE

Postdoctoral Fellow Sept. 2021 - Feb. 2025
University of Calgary, Calgary, AB, Canada
Cumming School of Medicine, Department of Radiology
Developmental Neuroimaging Lab, P.I. Catherine Lebel, PhD
**Maternity leave March-August 2022*

Doctoral Student Aug. 2016 - July 2021
University of Connecticut/Haskins Laboratories

Landi Lab
Principal Investigator: Nicole Landi, Ph.D.
**Maternity leave Nov.-Dec. 2018*

Research Coordinator/Research Study Assistant June 2014 - July 2016
Boston Children's Hospital
Division of Developmental Medicine
Laboratories of Cognitive Neuroscience: Gaab Lab
Principal Investigator: Nadine Gaab, Ph.D.

Undergraduate Research Assistant Aug. 2013 - May 2014
Boston Children's Hospital
Division of Developmental Medicine
Laboratories of Cognitive Neuroscience: Gaab Lab
Principal Investigator: Nadine Gaab, Ph.D.

Undergraduate Research Assistant May 2012 - May 2014
Emmanuel College, Boston, MA, USA
Department of Psychology
Cognition Lab
Principal Investigator: Xiaowei Zhao, Ph.D.

PEER-REVIEWED PUBLICATIONS

**indicates equivalent contribution*
Former name: Meaghan V. Mauer

1. Roeske, J., Long, X., **Perdue, M.V.,** Long, M., Geeraert, B., Ghasoub, M., Yeates, K.O., & Lebel, C. (2025). Sex differences in maturational timing of amygdala and prefrontal cortex volumes and white matter tract microstructure. *Developmental Cognitive Neuroscience, 74,* 101568. doi: 10.1016/j.dcn.2025.101568
2. Villa, M., Koirala, N., **Perdue, M.V**., Branum-Martin, L., & Landi, N. (2025). How does SES influence the brain circuitry for literacy? Modeling the association between SES, oral language, white matter integrity, and reading. *Developmental Cognitive Neuroscience, 73*, 101561. doi: 10.1016/j.dcn.2025.101561
3. Ghasoub, M., Scholten, C., **Perdue, M.**, Long, M., Ostertag, C., Kar, P., McMorris, C., Tortorelli, C., Gibbard, W. B., Dewey, D., & Lebel, C. (2025). Associations between white matter asymmetry and communication skills in children with prenatal alcohol exposure. *Drug and Alcohol Dependence, 272,* 112674. doi: 10.1016/j.drugalcdep.2025.112674
4. **Perdue, M.V.,** Geeraert, B.L., Manning, K.Y., Dewey, D., & Lebel, C. (2025). Phonological decoding ability is associated with fiber density of the left arcuate fasciculus across reading development in typically developing children. *Developmental Cognitive Neuroscience, 72,* 101537. doi: 10.1016/j.dcn.2025.101537
5. **Perdue, M.V.,** Ghasoub, M., Long, M., DeMayo, M.M., Bell, T.K., McMorris, C.A., Dewey, D., Gibbard, W.B., Tortorelli, C., Harris, A.D., & Lebel, C. (2025). Altered brain metabolite levels and links to cognition in young children exposed to alcohol *in utero*. *Metabolic Brain Disease, 40,* 30. doi: 10.1007/s11011-024-01432-6
6. Ghasoub, M., **Perdue, M.V.**, Long, X., Donnici, C., Kar, P., Gibbard, B., Tortorelli, C., McMorris, C., Dewey, D., & Lebel, C. (2024). The brain's structural connectivity and pre-reading abilities in young children with prenatal alcohol exposure. *Developmental Cognitive Neuroscience, 70,* 101467. doi: 10.1016/j.dcn.2024.101467

7. Giesbrecht, G.F., van de Wouw, M., Watts, D., **Perdue, M.V.,** Graham, S., Lai, B., Tomfohr-Madsen, L., & Lebel, C. (2024). Language learning in the context of a global pandemic: Proximal and distal factors matter. *Pediatric Research.* doi: 10.1038/s41390-024-03583-9
8. Ghasoub, M., **Perdue, M. V.,** Long, X., Donnici, C., Dewey, D. & Lebel, C. (2024). Structural neural connectivity correlates with pre-reading abilities in preschool children. *Developmental Cognitive Neuroscience, 65*, 101332. doi: 10.1016/j.dcn.2023.101332
   Citations: 1
9. **Perdue, M. V.,** DeMayo, M. M., Bell, T. K., Boudes, E., Bagshawe, M., Harris, A. D., & Lebel, C. (2023). Changes in brain metabolite levels across childhood. *NeuroImage, 274*, 120087. doi: 10.1016/j.neuroimage.2023.120087
   Citations: 9
10. **Perdue, M. V.,** Mahaffy, K., Vlahcevic, K., Wolfman, E., Erbeli, F., Richlan, F., & Landi, N. (2022). Reading intervention and neuroplasticity: A systematic review and meta-analysis of brain changes associated with reading intervention. *Neuroscience & Biobehavioral Reviews*, *132*, 465-494. doi: 10.1016/j.neubiorev.2021.11.011
    Citations: 34
11. Koirala, N., Kleinman, D., **Perdue, M. V.,** Su, X., Villa, M., Grigorenko, E. L., & Landi, N. (2021). Widespread effects of dMRI data quality on diffusion measures in children. *Human Brain Mapping.* doi: 10.1002/hbm.25724
    Citations: 7
12. Koirala, N., **Perdue, M. V.,** Su, X., Grigorenko, E. L., & Landi, N. (2021). Neurite density and arborization is associated with reading skill and phonological processing in children. *NeuroImage, 241*, 118426. doi: 10.1016/j.neuroimage.2021.118426
    Citations: 13
13. Thomas, T., **Perdue, M. V.,** Khalaf, S., Landi, N., Hoeft, F., Pugh, K. & Grigorenko, E. (2021). Neuroimaging genetic associations between *SEMA6D*, brain structure, and reading skills. *Journal of Clinical and Experimental Neuropsychology, 43*(3), 276-289. doi: 10.1080/13803395.2021.1912300
    Citations: 8
14. *Mascheretti, S., ***Perdue, M. V.,** Feng, B., Andreola, C. Dionne, G., Jasińska, K. K., Pugh, K. R., & Landi., N. (2020). From *BDNF* to reading: Neural activation and phonological processing as multiple mediators. *Behavioural Brain Research, 396*, 112859. doi: 10.1016/j.bbr.2020.112859
    Citations: 14
15. **Perdue, M.V.,** Mednick, J., Pugh, K. & Landi, N. (2020). Gray matter structure is associated with reading skill in typically developing young readers. *Cerebral Cortex, 30*(10), 5449-5459. doi: 10.1093/cercor/bhaa126
    Citations: 23
16. Yu, X., Zuk, J., **Perdue, M. V.,** Ozernov-Palchik, O., Raney, T., Beach, S. D., ... & Gaab, N. (2020). Putative protective neural mechanisms in prereaders with a family history of dyslexia who subsequently develop typical reading skills. *Human Brain Mapping*, *41*(10), 2827-2845. doi: 10.1002/hbm.24980
    Citations: 29
17. Landi, N., & **Perdue, M. V.** (2019). Neuroimaging genetics studies of specific reading disability and developmental language disorder: A review. *Language and Linguistics Compass*, *13*(9), e12349. doi: 10.1111/lnc3.12349
    Citations: 24
18. **Perdue, M. V.***, Mascheretti, S.*, Kornilov, S. A., Jasińska, K. K., Ryherd, K., Mencl, W. E., ... & Landi, N. (2019). Common variation within the *SETBP1* gene is associated with reading-related

skills and patterns of functional neural activation. *Neuropsychologia*, *130*, 44-51. doi: 10.1016/j.neuropsychologia.2018.07.015
Citations: 17

19. Zuk, J., **Perdue, M. V.**, Becker, B., Yu, X., Chang, M., Raschle, N. M., & Gaab, N. (2018). Neural correlates of phonological processing: Disrupted in children with dyslexia and enhanced in musically trained children. *Developmental Cognitive Neuroscience*, *34*, 82-91. doi: 10.1016/j.dcn.2018.07.001
Citations: 39
20. Yu, X., Raney, T., **Perdue, M. V.**, Zuk, J., Ozernov-Palchik, O., Becker, B. L., ... & Gaab, N. (2018). Emergence of the neural network underlying phonological processing from the prereading to the emergent reading stage: A longitudinal study. *Human Brain Mapping*. 39(5), 2047-2063. doi: 10.1002/hbm.23985
Citations: 75
21. Wang, Y., **Mauer, M.**, Raney, T., Peysakhovich, B., Becker, B., Sliva, D., & Gaab, N. (2017). Development of tract-specific white matter pathways during early reading development in at-risk children and typical controls. *Cerebral Cortex, 27(4),* 2469–2485. doi: 10.1093/cercor/bhw095
Citations: 182

PUBLICATIONS SUBMITTED AND IN PREPARATION

1. **Perdue, M.V.,** DeMayo, M.M., Bell, T.K., Vijayan, V.W.K., Alsop, D., Varma, G., Lebel, R. M., Harris, A.D., & Lebel, C. (under revision). Associations between brain metabolites and tissue microstructure in children: A multimodal imaging study.
2. Roeske, J., Long, X., **Perdue, M.V.**, Long, M., Geeraert, B., Ghasoub, M., Yeats, K.O., & Lebel, C. (Under review). Amygdala and prefrontal cortex maturational timing in children and adolescents with prenatal alcohol exposure.
3. Roeske, J., Long, X., **Perdue, M.V.**, Long, M., Geeraert, B., Ghasoub, M., Yeats, K.O., & Lebel, C. (Under review). Sex differences in maturational timing of amygdala and prefrontal cortex volumes and white matter microstructure.

PRESENTATIONS

INVITED TALKS

1. **Perdue, M. V.** (2024, February). What can metabolites tell us about brain development and cognition? Talk presented at the Psychology Colloquium. Northeastern University, Boston, MA.
2. **Perdue, M. V.** (2023, June). Metabolites in Healthy Brain Development. Talk presented at the Brain Mapping Center Seminar Series. University of California Los Angeles, Los Angeles, CA.
3. **Perdue, M. V.** (2021, March). Individual differences in reading ability: A look into the brain. Talk presented at the Psychological Sciences Department Cross-Disciplinary Graduate Colloquium. University of Connecticut, Storrs, CT.
4. **Perdue, M. V.** (2020, October). Changes in brain activation associated with reading intervention: A meta-analysis. Talk presented at the Zuk Lab Meeting. Boston University, Boston, MA.
5. **Perdue, M. V.** (2019, September). Examining associations between reading ability and brain structure in young children. Talk presented at the Senior Neuroscience Seminar. Western New England University, Springfield, MA.

CONFERENCE PRESENTATIONS: NATIONAL/INTERNATIONAL

**Indicates equal contribution*
Former name: Meaghan V. Mauer

1. Villa, M.; Koirala, N.; **Perdue, M.**; Branum-Martin, L.; Landi, N. (2025, March). How does the environment wire the brain for literacy? Modeling the relationship between SES, white matter, oral language, and reading. Poster presented at the Cognitive Neuroscience Society 2025 Annual Meeting, Boston, MA.
2. **Perdue, M.V.,** DeMayo, M. M., Bell, T. K., Warriyar K.V., V., Alsop, D., Varma, G., Lebel, R. M., Harris, A. D., & Lebel, C. (2024, Oct.). Associations between brain metabolites and tissue microstructure in children: A multimodal imaging study. Poster presented at the ISMRM Workshop on MR Spectroscopy: Frontiers in Molecular & Metabolic Imaging, Boston, MA.
3. **Perdue, M.V.,** Ghasoub, M., Long, M., DeMayo, M. M., Bell, T. K., McMorris, C., Dewey, D., Gibbard, W. B., Tortorelli, C., Harris, A. D., & Lebel, C. (2024, Sept.). Altered markers of brain metabolism and excitability are associated with executive functioning in young children exposed to alcohol *in utero*. Poster presented at the 2024 Flux Congress. Baltimore, MD.
4. Min, M., **Perdue, M. V.,** Giesbrecht, G.F., Tomfohr-Madsen, L., & Lebel, C. (2024, Sept.). Associations between prenatal maternal distress and children's brain white matter and expressive vocabulary at 2 years. Poster presented at the 2024 Flux Congress. Baltimore, MD.
5. Roeske, J., Long, X., **Perdue, M.**, Long, M., Geeraert, B., Ghasoub, M., Yeates, K., & Lebel, C. (2024, June). Developmental mismatches between amygdala and PFC macrostructure and white matter tract integrity. Poster presented at the Organization for Human Brain Mapping 2024 Annual Meeting. Seoul, South Korea.
6. Ghasoub, M., **Perdue, M.,** Long, X., Donnici, C., Kar, P., Dewey, D., Gibbard, B., Tortorelli, C., McMorris, C., & Lebel, C. (2024, June). Brain structural connectivity and pre-reading abilities in children with prenatal alcohol exposure. Poster presented at the Organization for Human Brain Mapping 2024 Annual Meeting. Seoul, South Korea.
7. Roeske, J., Long, X., **Perdue, M.,** Long, M., Geeraert, B., & Lebel, C. (2023, Oct.). Identifying developmental mismatches in the child brain: A multimodal study. Poster presented at the 24th Annual Alberta Biomedical Engineering Conference. Banff, AB, Canada.
8. **Perdue, M. V.,** Geeraert, B. L., Dewey, D. & Lebel, C. (2023, Sept.). Relationships between emerging reading abilities and white matter features across childhood. Poster presented at the 2023 Flux Congress. Santa Rosa, CA.
9. Roeske, J., Long, X., **Perdue, M.**, Long, M., Geeraert, B., & Lebel, C. (2023, Sept.). Identifying developmental mismatches in the child and adolescent brain: A multimodal study. Poster presented at the 2023 Flux Congress. Santa Rosa, CA.
10. **Perdue, M. V.,** DeMayo, M. M., Bell, T., Harris, A. D. & Lebel, C. (2023, July). Relationships between brain metabolites and myelination in children. Poster presented at the 29th Annual Meeting of the Organization for Human Brain Mapping. Montreal, QC, Canada.
11. Ghasoub, M., **Perdue, M.,** Long, X., Donnici, C., Dewey, D., & Lebel, C. (2023, July). Structural neural connectivity correlates with pre-reading abilities in preschool children. Poster presented at the 29th Annual Meeting of the Organization for Human Brain Mapping. Montreal, QC, Canada.
12. Villa, M., Koirala, N., **Perdue, M. V.,** Branum-Martin, L. & Landi, N. (2023, June). Does white matter integrity mediate the relationship between SES and reading skills? Poster presented at the 4th International Workshop on Reading and Developmental Dyslexia. Donostia San Sebastian, Spain.
13. **Perdue, M. V.,** DeMayo, M. M., Bell, T., Harris, A. D. & Lebel, C. (2022, Oct.). Reading ability and dynamics of choline levels across early childhood. Poster presented at the 14th Annual Meeting of the Society for the Neurobiology of Language. Philadelphia, PA.

14. **Perdue, M. V.,** DeMayo, M. M., Bell, T., Boudes, E., Bagshawe, M., Harris, A. D. & Lebel, C. (2022, June). Changes in neurochemistry across early-middle childhood. Virtual poster presented at the 28th Annual Meeting of the Organization for Human Brain Mapping (Hybrid Conference).
15. **Perdue, M. V.,** Pugh, K., & Landi, N. (2021, Oct.). Structure-function relationships and individual differences in reading. Slide Slam presented the 13th Annual Meeting of the Society for the Neurobiology of Language (Virtual Conference).
16. Villa, M., Mascheretti, S., **Perdue, M. V**., Feng, B., Lampis, V., Peruzzo, D., Dionne, G., Pugh, K., Grigorenko, E. & Landi, N. (2021) The effect of COMT on reading is mediated by top-down fronto-striatal activation. Slide Slam presented to the 13th Annual Meeting of the Society for the Neurobiology of Language (Virtual Conference).
17. **Perdue, M.V.,** Hancock, R., Hoeft, F., Pugh, K., & Landi, N. (2021, Sept.). Relationships among choline, white matter structure and reading in children. Poster presented at the 2021 Flux Virtual Congress.
18. Gaw, N., Lancaster, H., **Perdue, M.,** Grigorenko, E., Landi, N., Li, J. (2020, Nov.). Bayesian integration of genetics, imaging, and behavior data of reading (dis)ability. Talk presented at the 2020 INFORMS Annual Meeting (Virtual Conference).
19. **Perdue, M.V.,** Mahaffy, K., Vlahcevic, K., Wolfman, E., Erbeli, F., Richlan, F., & Landi, N. (2020, Oct.). Differences in brain activation following reading intervention: A meta-analysis. Poster presented at the 12th Annual Meeting of the Society for the Neurobiology of Language (Virtual Conference).
20. Mahaffy, K., **Perdue, M.V.,** Vlahcevic, K., Wolfman, E., Erbeli, F., Richlan, F., & Landi, N. (2020, Oct.). Reading intervention duration and brain activation changes before and after treatment: A meta-regression study. Poster presented at the 12th Annual Meeting of the Society for the Neurobiology of Language (Virtual Conference).
21. Koirala, N., **Perdue, M. V.,** Su, X., Grigorenko, E., & Landi, N. (2020, Oct.). Neurites orientation dispersion is associated with reading skill. Poster presented at the 12th Annual Meeting of the Society for the Neurobiology of Language (Virtual Conference).
22. **Perdue, M.V.,** Su, X., Koirala, N., Agrawal, V. & Landi, N. (2020, Sept.) Relationships between gray matter structure and reading ability in a large, diverse sample: Testing age- and sex-specific effects (Abstract ID: 131616). Poster presented at the 2020 Flux Virtual Congress.
23. Mascheretti, S., **Perdue, M.,** Feng, B., Andreola, C., Dionne, G., Jasińska, K.K., Pugh, K.R., & Landi, N. (2020, July). From BDNF to reading: The mediation role of patterns of neural activation and phonology. Poster abstract accepted to the Annual Meeting of the Society for the Scientific Study of Reading, Newport Beach, CA, USA (Conference canceled).
24. Koirala, N., **Perdue, M.**, Grigorenko, E., & Landi, N. (2020, June). Effect of dMRI data quality on diffusion measures in children. Poster presented at the 2020 Organization for Human Brain Mapping Annual Meeting (Virtual conference).
25. **Perdue, M.V.*,** Koirala, N.*, Su, X., Grigorenko, E., & Landi, N. (2019, Dec.). Quantifying imaging quality for multi-center data analysis. Poster presented at the Learning Disabilities Research Consortium Annual Meeting. Tallahassee, FL.
26. **Perdue, M.V.,** Mednick, J., Pugh, K. & Landi, N. (2019, August). Associations between cortical structure and reading related skills. Poster and data blitz presented at the Eleventh Annual Meeting of the Society for the Neurobiology of Language, Helsinki, Finland.
27. **Perdue, M.V.,** Mednick, J., Pugh, K. & Landi, N. (2019, July). Cortical structure is associated with later reading skills in beginning readers [talk presentation]. In N. Gaab & N. Landi (Chairs), *Neural correlates of early reading development: Evidence from longitudinal neuroimaging studies.* Symposium conducted at the Twenty-Sixth Annual Meeting of the Society for the Scientific Study of Reading, Toronto, Canada.

28. **Perdue, M.,** Kornilov, S., Jasińska, K., Ryherd, K., Mencl, W. E., Pugh, K., Grigorenko, E., & Landi, N. (2017, July). Reading related skills and brain structure are associated with variation in the *SETBP1* gene. Poster presented at the 24th Annual Meeting of the Society for the Scientific Study of Reading. Halifax, Nova Scotia.
29. Ozernov-Palchik, O., **Mauer, M.**, Norton, E., Beach, S., Wolf, M., Gabrieli, J.D.E. & Gaab, N. (2016, June). Distinct neural alterations of heterogeneous dyslexia risk profiles. The Dyslexia Foundation: The Geschwind-Galaburda Hypothesis 30 Years Later. St. Croix, Virgin Islands.
30. Wang, Y., Raney, T., **Mauer, M.V.**, Powers, S., Sliva, D. D., Becker, B. L. C., Raschle, N., & Gaab, N. (2016, June). Neural substrates of the executive attention network in children at-risk for dyslexia and typical controls. The Dyslexia Foundation: The Geschwind-Galaburda Hypothesis 30 Years Later. St. Croix, Virgin Islands.
31. **Mauer, M.,** Zuk, J., Becker, B., Raschle, N., Wang, Y., Chang, M., & Gaab, N. (2016, April). Neural correlates of phonological processing: Disrupted in children with reading disorders and enhanced in children with musical training. Poster presented at the *Cognitive Neuroscience Society Annual Meeting*, New York.
32. Wang, Y., **Mauer, M**., Raney, T., Peysakhovich, B., Becker, B., Sliva, D., & Gaab, N. (2016, April). Development of tract-specific white matter pathways during early reading development in at-risk children and typical controls. Poster presented at the *Cognitive Neuroscience Society Annual Meeting*, New York.
33. Ozernov-Palchik, O., **Mauer, M**., Norton, E., Beach, S., Wolf, M., Gabrieli, J.D.E. & Gaab, N. (2016, April). Distinct neural alterations of heterogeneous dyslexia risk profiles. Poster presented at the *Cognitive Neuroscience Society Annual Meeting*, New York.
34. Zuk, J., Becker, B., Norton, E., Ozranov-Palchik, O., **Mauer, M.,** Beach, S., Hogan, T., Gabrieli, J., & Gaab, N. (2016, April). Structural brain alterations in kindergarteners with speech sound disorders. Poster presented at the *Cognitive Neuroscience Society Annual Meeting*, New York.
35. Zuk, J., Becker, B., Norton, E., Ozernov-Palchik, O., Beach, S., **Mauer, M.,** Hogan, T.P., Gabrieli, J., Gaab, N. (2015, Aug.). Structural brain alterations in young children at behavioral risk for dyslexia and the impact of speech sound disorders. Presentation for the *Society for the Scientific Study of Reading* at the 7th International Summer School, Egmond an Zee, Netherlands.
36. **Mauer, M. V.** & Zhao, X. (2014, Nov.). Examining musical timbre and emotion. Poster presented at *the 55th meeting of the Psychonomic Society*, Long Beach, CA.
37. **Mauer, M. V.** & Zhao, X. (2013, Nov.). Examining noun bias in Spanish using the CHILDES database. Poster presented at *the 43rd annual meeting of the Society for Computers in Psychology,* Toronto.
38. Zhao, X. & **Mauer, M. V.** (2013, Nov.). Investigating "noun bias" across three languages: A computational study based on parallel corpora. Talk presented at *the 43rd annual meeting of the Society for Computers in Psychology,* Toronto.
39. Zhao, X., **Mauer, M. V.,** & Doyle-Smith, N. C. (2012, Nov.). A general music background questionnaire based on Google Forms and Google Template. Talk presented at *the 42nd annual meeting of the Society for Computers in Psychology*, Minneapolis.

CONFERENCE PRESENTATIONS: LOCAL/REGIONAL

**Indicates equal contribution*

Former name: Meaghan V. Mauer

1. **Perdue, M.V.,** (2024, May). Altered markers of brain metabolism and excitability are associated with executive functioning in young children exposed to alcohol *in utero*. Talk presented at the *2024 Owerko Centre Conference*, University of Calgary, Calgary, Canada.

2. Min, M., **Perdue, M. V.,** Tomfohr-Madsen, L., Giesbrecht, G., & Lebel, C. (2023, Sept.). Prenatal maternal distress during the COVID-19 pandemic, infant white matter integrity, and children's early vocabulary. Poster presented *at the 2023 Celebration of Achievement for Summer Studentship Awardees*, University of Calgary, Calgary, Canada.
3. **Perdue, M. V.,** Pugh, K., & Landi, N. (2021, April). Examining links between brain function, brain structure, and reading ability. Poster presented at the 11th Annual UConn Language Fest (Virtual Conference).
4. Wolfman, E., **Perdue, M. V.,** Vlahcevic, K., Mahaffy, K., Erbeli, F., Richlan, F., & Landi, N. (2020, May). Neuroimaging studies of reading intervention: A meta-analysis. Poster presented at the 23rd Annual Frontiers in Undergraduate Research Online Poster Exhibition. University of Connecticut, Storrs, CT.
5. Barratt, M.*, Narikatte, A.*, Ziegelmeier, A.*, **Perdue, M. V.,** & Landi, N. (2020, May). Role of phonological processing skills in reading ability in a diverse subject pool. Poster presented at the 23rd Annual Frontiers in Undergraduate Research Online Poster Exhibition. University of Connecticut, Storrs, CT.
6. **Perdue, M. V.**, Mednick, J., Pugh, K. & Landi, N. (2019, June). Cortical structure is associated with later reading skills in beginning readers. Talk presented at the 4th Annual New England Research on Dyslexia Society Meeting. Boston, MA.
7. **Perdue, M. V.**, Mednick, J., Pugh, K. & Landi, N. (2019, April). Associations between cortical surface structure and reading related skills. Poster presented at the 10th Annual UConn Language Fest. University of Connecticut, Storrs, CT.
8. Kandarpa, V., Nariktte, A., Wolfman, E., Sarles-Whittlesey, H., **Perdue, M. V.,** Grigorenko, E., & Landi, N. (2019, April). Evaluating cross-site reliability of relationships among cortical structure and age in children and adolescents. Poster presented at the 10th Annual UConn Language Fest. University of Connecticut, Storrs, CT.
9. Kandarpa, V., Nariktte, A., Wolfman, E., Sarles-Whittlesey, H., **Perdue, M. V.**, Grigorenko, E., & Landi, N. (2019, April). Evaluating cross-site reliability of relationships among cortical structure and age in children and adolescents. Poster presented at the 22nd Annual Frontiers in Undergraduate Research Poster Exhibition. University of Connecticut, Storrs, CT.
10. Mednick, J., Narikatte, A., Lavoie, L., **Perdue, M**., & Landi, N. (2018, April). Examining factors related to cortical asymmetry of the planum temporale and reading skills. Poster presented at the 9th Annual UConn Language Fest. University of Connecticut, Storrs, CT.
11. **Perdue, M. V.** & Landi, N. (2018, April). Examining brain structure correlates of reading acquisition. Poster presented at the 9th Annual UConn Language Fest. University of Connecticut, Storrs, CT.
12. Foley, K., **Perdue, M. V.**, Mencl, E. W., Frost, S., Pugh, K., & Landi, N. (2018, April). Early phonological awareness as a predictor of reading fluency: An MRI Study. Poster presented at the Psychological Sciences Department Graduate Poster Night. University of Connecticut, Storrs, CT.
13. **Perdue, M.**, Foley, K., Massad, A., Jasińska, K., Frost, S., Mencl, W.E., Pugh, K. & Landi, N. (2017, October). Relationships among brain structure and word reading outcomes across reading acquisition. Poster presented at the 3rd Meeting of the New England Research on Dyslexia Society. Storrs, CT.
14. **Perdue, M.** (2017, July). Examining neural structure in reading disability. Poster presented at the 7th CBER Graduate Research Symposium. University of Connecticut, Storrs, CT.
15. **Perdue, M.** Kornilov, S., Jasińska, K., Ryherd, K., Mencl, W. E., Pugh, K., Grigorenko, E., Landi, N. (2017, April). Reading related skills and brain structure are associated with variation in the *SETBP1* gene. Poster presented at the 8th Annual University of Connecticut Language Festival. University of Connecticut, Storrs, CT.

16. Massad, A., Foley, K., **Perdue M**., Mencl, E. Pugh, K., & Landi, N. (2017, April). Examining structural neural correlates of reading-related skills. Poster presented at the 8th Annual UConn Language Fest. University of Connecticut, Storrs, CT.
17. Zuk, J., Becker, B., Norton, E., Ozernov-Palchik, O., Beach, S., **Mauer, M.**, Hogan, T., Gabrieli, J., & Gaab, N., Patel, A.D. (2016, January). Disentangling behavioral and neural links between speech production deficits and dyslexia from kindergarten. Poster presented at the Northeastern Music Cognition Group Annual Meeting, Boston.
18. **Mauer, M.**, Ozernov-Palchik, O., Norton, E., Beach, S., Wolf, M., Gabrieli, J.D.E. & Gaab, N. (2015, October). Distinct Neural Alterations of Heterogeneous Dyslexia Risk Profiles. Poster presented at the *Neurodevelopmental Disorders Symposium*, Boston.
19. Wang, Y., **Mauer, M.**, Raney, T., Peysakhovich, B., Becker, B., Sliva, D., & Gaab, N. (2015, October). White matter development in children at risk for dyslexia. Poster presented at the *Neurodevelopmental Disorders Symposium,* Boston.
20. Zuk, J., Becker, B., Norton, E., Ozranov-Palchik, O., Beach, S., **Mauer, M**., Hogan, T., Gabrieli, J., & Gaab, N. (2015, January). Structural brain alterations in young children with speech sound disorders: A preliminary investigation. Poster presented at the *Speech and Hearing Bioscience and Technology Midwinter Forum,* Cambridge, MA.
21. Wang, Y., Raschle, N. M., Sliva, D., **Mauer, M. V.**, Powers, S., Becker, B., … Gaab, N. (2014, October). Atypical development of executive function in pre-readers at familial risk for dyslexia: a longitudinal fMRI study. Poster presented at *the 2nd annual meeting of the New England Research on Dyslexia Society,* Boston.

INTERNAL TALKS

Former name: Meaghan V. Mauer

1. **Perdue, M.V.** (2023, May). Relationships between brain metabolites and myelination in children. Flash talk presented at Radiology Research Day, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada.
2. **Perdue, M. V.** (2022, Oct.). Brain metabolite development across childhood. Talk presented at the Advanced Medical Imaging Seminar Series, Cumming School of Medicine, University of Calgary, Calgary, AB, Canada.
3. **Perdue, M. V.** (2020, Nov.). Relationships between gray matter structure and reading ability in a large, diverse sample: Testing age- and sex-specific effects. Talk presented at the University of Connecticut Neurobiology of Language Talk Shop series, Storrs, CT.
4. **Perdue, M. V.** (2020, Sept.). Changes in brain activation associated with reading intervention: A meta-analysis. Talk presented at the University of Connecticut Developmental Psychology Brown Bag, Storrs, CT.
5. **Perdue, M. V.** (2019, Oct.). Brain activation during reading mediates association between *BDNF* Val66Met polymorphism and reading ability. Talk presented at the University of Connecticut Neurobiology of Language Talk Shop series, Storrs, CT.
6. **Perdue, M.V.** (2018, Oct.). Associations between cortical structure and reading skills in beginning readers. (Oral defense of unpublished master's thesis). University of Connecticut, Storrs, CT.
7. **Perdue, M. V.** (2018, Sept.). Brain structure and word reading outcomes in beginning readers. Talk presented at the University of Connecticut Developmental Psychology Brown Bag, Storrs, CT.
8. **Perdue, M.,** Mascheretti, S., Kornilov, S. A., Jasińska, K. K., Ryherd, K, Mencl, W. E., Frost, S.J., Grigorenko, E.L., Pugh, K. R., & Landi, N. (2017, Oct.). Reading-related behavior and brain

activation associated with variation on the *SETBP1* gene. Talk presented at the University of Connecticut Neurobiology of Language Talk Shop series, Storrs, CT.

9. **Perdue, M.** (2017, Sept.). Examining the neurochemistry of reading disability. Talk presented at the University of Connecticut Developmental Psychology Brown Bag, Storrs, CT.
10. **Perdue, M.**, Ozernov-Palchik, O., Norton, E., Beach, S., Wolf, M., Gabrieli, J.D.E. & Gaab, N. (2016, Oct.). Distinct neural alterations of heterogeneous dyslexia risk profiles. Talk presented at the University of Connecticut Neurobiology of Language Talk Shop series, Storrs, CT.
11. **Mauer, M. V.** (2013). Studying child language and literacy: Research at Emmanuel College and Boston Children's Hospital. Talk presented at the MINDS psychology faculty and student research seminar, Emmanuel College, Boston, MA.

TEACHING & MENTORING

Guest Lecturer – MDSC689.11: *Applications for Neuroimaging Research* Feb. 2023, 2024
University of Calgary, Cumming School of Medicine, Calgary, AB, Canada
Lecture: "Multiple Comparisons: What's the problem and how do we address it?"

Co-supervisor – Undergraduate Honor's Thesis 2023 - 2024
University of Calgary, Calgary, AB, Canada

Research Mentor – Alberta Innovates Summer Research Studentship Summer 2023
University of Calgary, Calgary, AB, Canada

Co-Instructor: *Diffusion Weighted MRI Crash Course and MRtrix3 Intro* May 2023
Developmental Neuroimaging Lab Meeting
University of Calgary, Calgary, AB, Canada

Research Mentor – NEUR507: *Independent Study in Neuroscience* Spring 2023
University of Calgary, Calgary, AB, Canada

Co-instructor – LandiLab MRI Training Course 2020 - 2021
University of Connecticut, Storrs, CT

Instructor of Record – PSYC2400: *Developmental Psychology* Summer 2020
University of Connecticut, Storrs, CT

Research Mentor: Holster Grant Undergraduate Research Program 2019 - 2021
University of Connecticut, Storrs, CT

Guest Lecturer – PSYC2400: *Developmental Psychology* Fall 2019
University of Connecticut, Storrs, CT
Lectures: "Biology & Behavior", "Theories of Cognitive Development", "Emotional Development"

Scientific Mentor: Hendrick Hudson High School Science Research Program July 2017 - June 2019

Research Mentor: LandiLab 2017 - 2021
University of Connecticut, Storrs, CT

Lecturer: *Introduction to Freesurfer for Structural MRI* Jan. 2017
Neurobiology of Language Program January Term Primers
University of Connecticut, Storrs, CT

Lecturer: *Freesurfer Overview Workshop* Nov. 2016
Haskins Laboratories, New Haven, CT

OUTREACH & SERVICE

Presenter: OHBM Brain Mappers of Tomorrow Science Outreach Event June 2024
Presentation title: "Making Connections: How does brain wiring change as kids learn and grow?"
Calgary, AB, Canada
https://ohbm-dic.github.io/kidsreview/2024/english_session/

Reviewer: Graduate Science Education Internal Review Committee Sept. 2022 - Present
University of Calgary

Co-coordinator Aug. 2020 - May 2021
Developmental Psychology Brown Bag Talk Series
University of Connecticut, Storrs, CT

Panelist: Research Connections 2020 Interdisciplinary Panel Oct. 2020
Topic: Mapping the Brain: A Window Into Neuroscience and Genetics
University of Connecticut, Storrs, CT

Scientist: Skype a Scientist Outreach Program April 2020 - present
www.skypeascientist.com

Member: Scientific Outreach Committee Jan. 2020 - May 2021
Neurobiology of Language/Science of Learning and Art of Communication
University of Connecticut, Storrs, CT

Moderator: Panel on Research to Practice in Reading Jan. 2020
J-term Primers
Neurobiology of Language/Science of Learning and Art of Communication
University of Connecticut, Storrs, CT

Guest scientist: Brain Day March 2019
Center Nursery School
South Hadley, MA

Senator: Graduate Student Senate 2018 - 2019
University of Connecticut, Storrs, CT

Developmental Program Representative: Graduate Student Advisory Committee (Secretary: 2018 – 2019) 2017 - 2019
Department of Psychological Sciences
University of Connecticut, Storrs, CT

Organizational Committee Member: New England Research on Dyslexia Society Conference Oct. 2017

Student Committee Member: MINDS faculty and student research forum Fall 2012 - May 2014
Department of Psychology
Emmanuel College, Boston, MA

Ad-hoc Reviewer

Brain & Language
Cerebral Cortex
Developmental Cognitive Neuroscience
Developmental Science
Discover Social Science and Health
Language, Cognition and Neuroscience
Neurobiology of Language
NeuroImage
Neuroscience & Biobehavioral Reviews
New Directions for Child and Adolescent Development

Dyslexia *Scientific Studies of Reading*

SKILLS & EXPERTISE

Data management and statistics: longitudinal data analysis, mixed-effects modelling (*R, SPSS, REDCap)*
MRI processing and data analysis: structural MRI, functional MRI, diffusion-weighted MRI, magnetic resonance spectroscopy, meta-analysis *(Freesurfer, fMRIPrep, AFNI, FSL, MRTrix3, LCModel, FID-A, Osprey Seed-Based d-Mapping)*